1. A homogenizer for homogenizing free-flowing substances comprising:

a rotor which is mounted for rotation in a first housing,

a drive device coupled to rotate the rotor,

a rotatable element coupled to the drive device which is mounted for rotation in the first housing and driven for rotation independently of the rotor, for homogenizing and/or transporting the liquid substance.

2. The homogenizer of Claim 1, wherein the rotatable element can be driven in the same direction as or opposite to the rotor.

3. The homogenizer of Claim 1, wherein the rotatable element is constructed as an impeller with a plurality of pump buckets.

4. The homogenizer of Claim 1, wherein the rotatable element is constructed as one of a stator and a rotor with blades.

5. The homogenizer of Claim 1, wherein the rotatable element and the rotor are coupled with two drive shafts which are coaxial to each other, to drive the rotatable element or the rotor.

6. The homogenizer of Claim 5, wherein at least one of the two drive shafts is constructed as a hollow shaft.

7. The homogenizer of Claim 6, wherein the two drive shafts further comprise an inner drive shaft supported in an outer drive shaft by roller bearings, and the outer drive shaft in turn is supported in a second housing.

8. The homogenizer of claim 1, wherein at least one shaft seal is provided to seal the interior of the first housing of the homogenizer against the surroundings.

9. The homogenizer of Claim 5, wherein at least one of the rotor and the rotatable element has a base plate which is coupled with the corresponding drive shaft from which the blades extend axially, the rotational axes of the drive shafts are positioned essentially vertically in operation, and the drive shafts are each driven by one of a toothed belt V-belt and chain.

10. The homogenizer of Claim 1, further comprising respective drive motors coupled to the rotor and the rotatable element, the drive motor being controlled such that the rotor and the rotatable element can be rotated at adjustable relative speeds in the same or opposite directions, or such that either the rotor or the rotatable element is driven while the other component stands still.

11. The homogenizer of Claim 10, wherein the drive motors of the rotor and the rotatable element can be controlled in such a way that the rotor and the rotatable element can each rotate in both directions.

12. The homogenizer of Claim 1, wherein the first housing has an inlet opening through which the liquid material can flow axially from a container into the interior of the first housing, and an outlet opening through which the homogenized liquid substance flows essentially radially and/or tangentially out of the housing, and that there are two return lines which communicate with the outlet opening of the housing, through which the liquid substance can be conveyed back to various locations in the container depending on the position of a control valve.

13. The homogenizer of Claim 1, further comprising fixed-position stator interleavings arranged on the first housing.

14. The homogenizer of Claim 5 further comprising:

respective drive motors operable to rotate the respective drive shafts.